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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,803	06/28/2006	**Davide Filizola**	09952.0063	3410

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EXAMINER	
LY, NGHI H	

ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
08/14/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/584,803	FILIZOLA ET AL.	
	Examiner	Art Unit	
	Nghi H. Ly	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *25-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *25-27,30,31,33-35,38,39 and 41-48* is/are rejected.

7)☒ Claim(s) *28,29,32,36,37 and 40* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *06/28/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 25-27, 30, 33-35, 38 and 41-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Sessions (US 6,397,062).

Regarding claims 25 and 33, Sessions teaches a method for estimating the field received starting from at least one source of electromagnetic field in a determined position of the territory covered by a communication network comprising a plurality of sources of electromagnetic field (see Abstract and column 1, lines 17-23), the method comprising the step of estimating the field on the basis of a propagation model and defining the propagation model according to the topologic characteristics of the sources of electromagnetic field of the plurality of sources of electromagnetic field in proximity to the determined position of the territory (see column 2, line 39 to column 3, line 32 and column 3, line 54 to column 4, line 6).

Regarding claims 26 and 34, Sessions teaches identifying at least one parameter identifying the topologic characteristics, the parameter having a respective range of variability, subdividing the range of variability of the parameter into a plurality of intervals, and using, to estimate the electromagnetic field, a different propagation model

for each of the ranges of the plurality (see Abstract, column 1, lines 17-23 and column 1, lines 39-52).

Regarding claims 27 and 35, Sessions teaches identifying at least one parameter identifying the topologic characteristics, and estimating the electromagnetic field by using a single propagation model, the single propagation model being modified in parametric fashion as a function of the value of the parameter identifying the topologic characteristics (see column 2, line 39 to column 3, line 32 and column 3, line 54 to column 4, line 6).

Regarding claims 30 and 38, Sessions teaches modifying the propagation model according to a parameter identifying the density of the cells of the cellular network (see column 1, lines 39-65).

Regarding claim 41, Sessions teaches a communication network incorporating a system as claimed in claim 33 (see Abstract).

Regarding claim 42, Sessions teaches the network is for mobile communications (see column 1, lines 15-38).

Regarding claim 43, Sessions teaches a communication network resulting from the application of the method as claimed in claim 25 (see Abstract, column 1, lines 17-23 and column 1, lines 39-52).

Regarding claim 44, Sessions teaches a communication network terminal comprising a processing unit configured to implement the method as claimed in claim 25 (see column 2, line 39 to column 3, line 32).

Regarding claim 45, Sessions teaches a method for simulating a mobile radio

network able to use a simulation of the physical layer of the network, comprising a method for estimating the field as claimed in claim 25 (see column 3, line 54 to column 4, line 6).

Regarding claim 46, Sessions teaches a method for planning a mobile radio network, comprising a method for estimating the field as claimed in claim 25 (see column 2, line 39 to column 3, line 32).

Regarding claim 47, Sessions teaches a method for locating mobile terminals in a mobile radio network, comprising estimating the field as claimed in claim 25 (see Abstract, column 2, line 39 to column 3, line 32 and column 3, line 54 to column 4, line 6).

Regarding claim 48, Sessions teaches a computer program product able to be loaded into the memory of at least one electronic computer and comprising portions of software code capable of implementing the method as claimed in claim 25 (see Abstract, column 2, line 39 to column 3, line 32 and column 3, line 54 to column 4, line 6).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 31 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sessions (US 6,397,062) in view of in view of Alden et al (US 2003/0231141A1).

Regarding claims 31 and 39, Sessions teaches claims 25 and 33. Sessions does not specifically disclose modifying the propagation model according to a parameter identifying the distance of the determined position with respect to the source of electromagnetic field of the plurality of sources of electromagnetic field that is closest to the determined position.

Alden teaches modifying the propagation model according to a parameter identifying the distance of the determined position with respect to the source of electromagnetic field of the plurality of sources of electromagnetic field that is closest to the determined position (see [0011] to [0014]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Alden into the system of Sessions in order to measure electromagnetic wave field quantities and in particular to

antenna arrays having an arrangement of antenna elements with specific dimensions, spacing and impedance for improved performance (see Alden, [0002]).

Allowable Subject Matter

6. Claims 28, 29, 32, 36, 37 and 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 28 and 36, the combination of Sessions (US 6,397,062) and Alden et al (US 2003/0231141A1) fails to teach claims 28 and 36.

Regarding claims 29 and 37, the combination of Sessions (US 6,397,062) and Alden et al (US 2003/0231141A1) fails to teach claims 29 and 37.

Regarding claims 32 and 40, the combination of Sessions (US 6,397,062) and Alden et al (US 2003/0231141A1) fails to teach associating to each cell of the cellular network a reference distance representing the distribution of the sources of electromagnetic field of the plurality of sources of electromagnetic field, associating to the determined position a cell distance identifying the distance between the determined position and the source of electromagnetic field of the plurality of sources of electromagnetic field that is closest to the determined position, and identifying the parameter which identifies the topologic characteristics of the network as the greater value between the cell distance and a multiple of the reference distance.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi H. Ly whose telephone number is (571)272-7911. The examiner can normally be reached on 9:30am-8:00pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nghi H. Ly

/Nghi H. Ly/
Primary Examiner, Art Unit 2617